National Park Service
U.S. Department of the Interior
Denali National Park and Preserve
Alaska

**Finding of No Significant Impact**
**Milepost 231: Geotechnical Investigations**
**October 2016**

Recommended:

9/26/16

Donald Striker — Date
Superintendent, Denali National Park and Preserve

Approved:

10/3/2016

Herbert C. Frost, Ph.D. — Date
Regional Director, Alaska

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## INTRODUCTION

In compliance with the National Environmental Policy Act of 1969 (NEPA), the National Park Service (NPS) prepared an Environmental Assessment (EA) to examine alternative actions and environmental impacts associated with the proposal to issue a special use permit to the Alaska Department of Transportation and Public Facilities (ADOT&PF) to conduct geotechnical investigations in the vicinity of milepost 231 (MP 231) on the George Parks Highway (Alaska Highway Route 3). The proposed project site is located approximately 6 miles south of the main entrance to Denali National Park and Preserve (Denali), just north of the Nenana River where the highway crosses the river at MP 231.

The objective of the proposed action is to provide information about the suitability of soils at a site being considered as a future NPS wayside that could include a parking area, a vault toilet, a bus stop structure, and trailhead amenities. The proposed geotechnical investigation project includes drilling four boreholes, the clearing of trees to permit access to the drilling sites via a low surface pressure drill rig, (approximately 70 to 100 trees, 6 inches in diameter or greater, measured at 5 feet high), and impacts to surface vegetation on up to 0.3 acres in Denali.

The proposed project and associated potential future development are solely for the purpose of preserving or enhancing the activities, features, or attributes that qualify Denali for protection under Section 4(f) of the Department of Transportation Act of 1966. Temporary occupancy of the project is in accord with 23 CFR 774.13(d).

The statements and conclusions reached in this finding of no significant impact (FONSI) are based on documentation and analysis provided in the Milepost 231: Geotechnical Investigations EA and associated decision file, hereby incorporated by reference. Relevant sections of the EA are summarized below.

## SELECTED ALTERNATIVE AND RATIONALE FOR THE DECISION

Based on the analysis presented in the EA, the NPS Alaska Regional Director selected Alternative 2, the proposed action to conduct geotechnical data at an area being considered for development. The selected alternative supports park planning goals for the front country portions of Denali as delineated in the Final Entrance Area and Road Corridor Development Concept Plan EIS (1997) and will not result in significant adverse environmental impacts.

This alternative allows for a scientific evaluation of the suitability of soils at the proposed wayside location. When the NPS considers projects at new locations, sustainable design and good design principles include developing an understanding not only of the potentially impacted resources but also the general suitability of the site as it relates to engineering and design. Similar investigations in Denali have resulted in design and siting revisions, highlighting the need to gather pertinent data to inform design decisions early in the planning process.

ADOT&PF contractors will begin the project by conducting a site visit with NPS staff to evaluate the access path to minimize impacts from the 8-foot wide drill rig, including minimizing tree removal. Approximately 70-100 trees will be flush-cut by chainsaw, limbed, and stacked along the side of the access path. The access path will be approximately 1200 feet long by 10-feet wide, constituting an impacted area of approximately 0.3 acres. Drilling operations will be conducted by a 2.9 pounds per square inch surface pressure drill rig and will be completed in approximately 2 days of operation. Four bore holes, 20 feet deep with an 8-inch diameter, are planned to be drilled and subsequently back-filled with the material extracted from the holes. The drill rig will make one round-trip through the project site, resulting in two passes over surface vegetation. Surface vegetation will not be removed, but would be temporarily compressed.

Felled trees visible from the Parks Highway will be removed from the area by NPS staff following the drilling. This is expected to result in additional passes over surface vegetation to remove 15-30 trees from the site. The removal will be carried out by dog teams when snow is present to reduce impacts. If necessary, revegetation adjacent to the Parks Highway will be undertaken if the visual change to the forest edge results in indirect impacts, such as social trail formation. All activity related to the drilling project will take place within the footprint of the proposed wayside.

## MITIGATION MEASURES

Mitigation measures adopted as part of the selected alternative describe actions to avoid or reduce impacts park resources. The mitigation measures inform the conditions of the Special Use Permit issued to ADOT&PF. The selected alternative includes the following mitigation measures.

- NPS and ADOT&PF will conduct a pre-construction site visit to flag trees with the goal of minimizing the number of trees removed and minimizing drill rig travel distance to limit impacts to surface vegetation
- NPS staff will be on-site during clearing and drilling operation to monitor resource protection
- Clearing in accord with Migratory Bird Treaty Act
- Felled trees will be flush cut, limbed and stacked alongside the access path in an organized fashion
- Low surface pressure drill rig will be used for access to borehole locations
- Boreholes will be backfilled with removed soils
- Drill log and report will be provided to NPS
- Preventative steps will be taken to preclude introduction of non-native species (drill rig cleaned in advance of use, surface vegetation left intact)
- Felled trees visible from the Parks Highway will be removed
- If needed, revegetation to create visual buffer near highway will be planted.

## PUBLIC INVOLVEMENT

A 30-day public review and comment period of the EA was conducted from August 17, 2016 to September 18, 2016. The press release announcing the EA was mailed to local media, agencies and groups. The EA was posted to the Planning and Environmental Comment (PEPC) website and the public was invited to submit comments via mail, email, or through PEPC. Five submissions were received from four parties. The public comments did not change the conclusions of the EA about the environmental effects of the action but did offer substantive feedback which is addressed in Appendix B.

Additionally, the National Park Service hosted a multi-project open house on November 18, 2015, which included an information station regarding the proposed activities at MP 231 (18 attendees). ADOT&PF hosted three open houses in Healy and McKinley Village (April 15, 2015; August 28, 2015; September 30, 2015). NPS staff were in attendance at the ADOT&PF open houses to listen to public feedback about the MP 231 project. Additionally, a public scoping period about multiple projects, including those proposed at MP 231, was available October 21,

2015 to December 19, 2015. During this time, 5 comments about the wayside were submitted. Public comments received about the wayside concept via these multiple forums have generally been supportive.

## FINDING OF NO SIGNIFICANT IMPACT

The selected alternative will not have a significant effect on the human environment. As described in the EA, the selected alternative has the potential for some adverse impacts on vegetation, soils, and viewshed, however, no significant adverse impacts were identified.

The proposed action will clear approximately 70-100 trees in a total area of approximately 0.3 acres. Surface vegetation will not be removed, but is expected to receive two passes by a low surface pressure drill rig and additional passes by dog team during the winter to extricate trees visible from the parks highway (approximately 15-30 trees). The passes along the 1200 foot long access path (approximately 10-feet wide) will likely result in the temporary compression of surface vegetation. Four boreholes are planned to be drilled in area soils to a depth of 20 feet (8-inch diameter). These boreholes will be backfilled following the drilling.

Clearing a 1200 foot long access route will impact the viewshed, particularly at the entrance to the access route where visible from the Parks Highway and could invite social trail formation at the new opening, thus potentially requiring revegetation.

The selected alternative will not have significant effects on visitor experience, acoustic resources, air quality, cultural resources, subsistence use, wetlands, wildlife, threatened or endangered species, Indian trust resources or sacred sites, or environmental justice. No highly uncertain or controversial impacts, unique or unknown risks, significant cumulative effects, or elements of precedence were identified. Implementation of the NPS selected alternative will not violate any federal, state, or local environmental protection law.

## CONCLUSION

As described above, the selected alternative does not constitute an action meeting the criteria that normally requires preparation of an environmental impact statement (EIS). The selected alternative will not have a significant effect on the human environment in accordance with Section 102(2)(c) of NEPA. Based on the foregoing, it has been determined that an EIS is not required for this project and, thus will not be prepared.

This action complies with the Endangered Species Act, the National Historic Preservation Act, and Executive Orders 11988, 11900, and 12898. There will be no significant restriction of subsistence activities as documented by ANILCA Title VIII, Section 810(a) summary evaluation and findings. No federal, state or local laws or requirements imposed for the protection of the environment will be violated by implementing this action.

## APPENDICES

- A: Non-Impairment Finding
- B: Responses to Substantive Public Comments

Appendix A
**Non-Impairment Finding**

A determination of non-impairment is made for each of the resource impact topics carried forward and analyzed in the environmental assessment for the preferred alternative. The park's Foundation Statement was used as a basis for determining if a resource is:

- Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park, or
- Key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or
- Identified in the park's general management plan or other relevant NPS planning documents as being of significance.

**Soils and Vegetation**

Soils and vegetation resources are not identified as a specific purpose in the establishing legislation of the park and soils and vegetation are not specifically identified in the park's general management plan as being of significance. Soils and vegetation are key components for "wildlife and habitat," which is identified as a significance statement for Denali National Park and Preserve. The selected alternative will result in impacts to soils and vegetation of approximately 0.3 acres, within the footprint of the proposed developed area. With retention of surface vegetation and the efforts to minimize tree removal and area of the access path, the level of disturbance from the proposed action will not result in impairment.

**Viewshed**

The preservation of scenic beauty is among the park's significance statements and the purposes for which the park was established. Past and present activities have resulted in visual impacts in the form of vegetation removal, transportation infrastructure, signs within the park, and commercial and residential facilities in close proximity. These features both impact the viewshed as well as provide opportunities (via roads, trails, railways) to experience Denali's scenic resources. The clearing of trees to create a 10-foot wide path in a mixed spruce and broadleaf forest will not be generally visible and is planned to take place in an area with many other current and abandoned corridors. The viewshed impact is expected to be ready visible only where the path leaves the edge of the Parks Highway. The proposed action will not result in impairment to the viewshed as the visual impact is not expected to be conspicuous from the highway, particularly because felled trees will be removed and surface vegetation will not be removed. Visual impacts could be mitigated, as needed, with revegetation measures, including replanting trees parallel to the highway.

**Conclusion**

In conclusion, as guided by this analysis, good science and scholarship, advice from subject matter experts and others who have relevant knowledge and experience, and the results of public involvement activities, it is the Superintendent's professional judgment that the proposed action, conducted with the mitigation measures identified as part of Alternative 2, will not result in impacts to park resources and values that constitute impairment.

Appendix B

**NPS Responses to Public Comments**
for
**Milepost 231: Geotechnical Investigations**

This appendix offers NPS responses to substantive comments received during the public review period of the EA.

**Topic 1** (Denali Citizens Council (DCC) and individual correspondence): It is unclear why the borehole information is required and whether other alternatives for gleaning the information are available. It is unclear what soil issues are being addressed with this testing and how will the knowledge impact the outcome of the project.

**Response 1**: The proposed geotechnical investigations are being done to gather information that may inform, steer, or terminate design decisions at the site. Gathering this type of background data is prudent and common in evaluating proposed projects and is therefore being undertaken in advance of the overall wayside project.

The soils issues that are being investigated relate to soil moisture, soil type, and the potential for ice. As demonstrated throughout Alaska, particularly with climate change, poor soils can lead to failure of roads, structures, and bridges. The goal in gathering data at the MP 231 site is to account for and avoid any buried ice, areas of high moisture content, and areas with silty or other types of soils that hold up poorly once disturbed or built upon. Additionally, geotechnical investigation has been known to reveal a variety of unforeseen problems and or resource considerations and is undertaken as a best practice germane to good design principles and investment in sustainable facilities.

**Topic 2** (DCC): The public has not had an opportunity to comment on the MP 231 Wayside project in general and consideration of the geotechnical investigations is not being considered as part of the cumulative impacts resulting from the entirety of the potential wayside project.

**Response 2**: There have been multiple opportunities for the public to comment about the concept of the wayside generally. The National Park Service hosted a multi-project open house on November 18, 2015, which included an informational station regarding the proposed activities at MP 231. ADOT&PF hosted three open houses total in Healy and McKinley Village (April 15, 2015; August 28, 2015; September 30, 2015). NPS staff were in attendance at the ADOT&PF open houses to listen to public feedback about the MP 231 activities being considered for NPS lands. Additionally, a public scoping period about multiple projects, including those proposed at MP 231, was available October 21, 2015 to December 19, 2015. During this time, five submissions were provided by the public. Public comments received about the wayside concept via these multiple forums have generally been supportive.

Recognition that the geotechnical investigations would constitute an independent EA became apparent after these respective public involvement opportunities, a result of increasing awareness of the precise needs for sustainable planning for the site. The intent is not to overlook cumulative impacts, but rather to best inform understanding of those impacts by considering the wayside project itself with the pertinent data that the geotechnical investigations will yield. While no decision has been made regarding construction of the wayside, the wayside project was included as a reasonably foreseeable future action in the cumulative effects analysis for this EA (see pages 16-18 of the EA). If the wayside project proceeds, another EA will be conducted, which will also include a cumulative effects analysis.

**Topic 3** (DCC): The EA should address what material will be removed from the boreholes for analysis and what, if any, backfill material will be used to compensate for the removed material.

**Response 3**: A negligible amount of material will be removed from the site. After the soils are analyzed on-site, the bore holes will be back-filled with the material that came out of the hole. No imported material will be required. Approximately one cup of soil from each hole would be removed from the site for further analysis off-site.

**Topic 4** (DCC): The EA should address what will happen to the trees.

**Response 4**: The decision to remove only the visible felled trees was in response to the desire to minimize the attraction to the site, and minimize the surface impacts. Removing all of the trees would not change the aesthetics visible from either the Parks Highway or area trails but would add to the impacts to surface vegetation. The presence of the felled trees that will be left in place is not an anticipated safety concern because the area is not an area immediately adjacent to the trail or parking and is not anticipated to serve as an attraction. Healthy forests typically contain downed trees. Should the wayside project not proceed for any reason, leaving the felled trees will allow the nutrients to remain in place. The visible felled trees will be removed by dog team when sufficient snow cover exists. The removed trees will be offered to NPS crews (trails, carpentry, etc.) as building material, for heating winter patrol cabins, or other administrative uses.

**Topic 5** (Individual): The EA does not address the Paleontological Resources Protection Act (PRPA).

**Response 5**: The area is not known to nor is it probable to contain paleontological resources and was therefore not specifically addressed in the EA. Issues are not addressed if there is no nexus with the proposed project.

**Topic 6** (Individual): The project proposes drilling in a Wilderness area.

**Response 6**: The project would not occur in Designated or Eligible Wilderness. The project is located adjacent to a public highway.

**Topic 7** (Individual): Will the impacts from this project alter the "natural setting" relative to the aesthetics of the area in the future if the wayside is indeed constructed?

**Response 7**: The project is not anticipated to alter the overall ecosystem or to remove the sense of being a "natural setting." The respondent's concern that the arrival of other species, significant ecosystem changes, or supplanting of a natural setting for one that would not be apropos for park visitors is being considered in the overall planning for the proposed activities in the MP 231 area. It is a goal of the overall safety enhancements being considered for the area to maintain a natural setting that visitors will enjoy. This EA acknowledges that there will be some impacts to the viewshed in permitting the geotechnical investigation, but this action will not significantly alter the area's natural setting.

**Topic 8** (DCC): The EA should list alternatives for determining soil composition.

**Response 8**: A drill rig is the chosen approach because mechanized drilling produces deeper and thus more comprehensive samples than hand-drilling options. Larger rigs were dismissed from consideration due to potential for increased impacts in clearing requirements and soil compaction.

The area's geology is a topic of ongoing investigation. Information from geotechnical investigations of this type are valuable for continuing to expand knowledge of the area's geologic resources. LIDAR (Light Detection and Ranging) maps and soil tests relevant to wetlands investigations have been examined as a part of this planning process to date. The NPS agrees that calling out these considerations and the limitations to these alternatives deserves mention. Another alternative considered was to proceed with the knowledge provided by the extensive wetlands report conducted for the totality of the projects proposed for the 231 area. This data alone, however, did not seem adequate for determining deeper subsurface compositions.